Examiner: Naishadh N. Desai

Response to Office Action Mailed 04/28/2008

Docket: VAL 223 P2 - MFR 0204 PCT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A rotating electrical machine, comprising a longitudinal axis, an outer shell of hollow form, a stator fixed in the <u>outer</u> shell, a rotary shaft passing through the stator along the longitudinal axis, a rotor fixed to the rotary shaft rotating inside the stator, and a fan with blades driven rotationally by the rotary shaft and disposed on a first axial side of the rotor inside said outer shell, said outer shell having, on the one hand, at its outer periphery, radial ports and, on the other hand, at least one of its axial ends, axial ports for constituting air inlet and air outlet ports arranged so that the fan creates a flux of air going from said air inlet to said air outlet, said air inlet and outlet ports each consisting of comprising an opening cut in the outer shell and subdivided by mechanical supporting fins each elongated according to a profile specific thereto, in which a radial port is made on a radial face, overall of longitudinal orientation, of the outer shell and has a substantially cylindrical overall shape coaxial with the longitudinal axis, characterized in that wherein at least one fin, referred to as a radial fin, of said radial port, considered in the a plane tangential to thissaid radial port at the level of said radial fin, extends in a general direction forming an angle greater than 0° with respect to the a longitudinal direction so that edges of the fan with blades turned towards said radial port progressively sweep across the radial fin according to its profile while turning about the rotary shaft, in a shearing movement whereby at each instant only one substantially point-shaped portion of the an edge of the blade is opposite the radial fin.

Examiner: Naishadh N. Desai

Response to Office Action Mailed 04/28/2008

Docket: VAL 223 P2 - MFR 0204 PCT

2. (Currently Amended) The rotating electrical machine according to Claim 1, characterized in that wherein the angle is less than 30°.

- 3. (Currently Amended) The rotating electrical machine according to Claim 1, characterized in that wherein the radial port comprises at least one radial fin which, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the a radial direction.
- 4. (Currently Amended) The rotating electrical machine according to Claim 1, eharacterized in that wherein at least one axial port is made on an axial face of the outer shell, overall of orientation perpendicular to the longitudinal axis, and is delimited on a radially inner side by a substantially circular inner edge, at least one fin, referred to as an axial fin, of said radial port, considered in a plane perpendicular to the longitudinal axis, extending in a general direction forming an angle less than 90° with respect to the tangent to the inner edge so that said axial fin, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the radial direction.
- 5. (Currently Amended) The rotating electrical machine according to Claim 4, characterized in that wherein the angle is greater than 60°.
- 6. (Currently Amended) The rotating electrical machine according to Claim 4, eharacterized in that wherein the radial port comprises at least one radial fin which, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the radial direction, and in that the axial fin, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the radial direction in the same sense as the radial fin.

Examiner: Naishadh N. Desai

Response to Office Action Mailed 04/28/2008

Docket: VAL 223 P2 - MFR 0204 PCT

7. (Currently Amended) The rotating electrical machine according to Claim 1, characterized in that wherein the radial fins have, perpendicular to their profile, a section of constant size.

- 8. (Currently Amended) The rotating electrical machine according to Claim 1, characterized in that wherein the radial fins have, perpendicular to their profile, a section of variable size along this profile.
- 9. (Currently Amended) The rotating electrical machine according to Claim 8, eharacterized in that wherein the fins have a curved profile.
- 10. (Currently Amended) The rotating electrical machine according to Claim 1, characterized in that wherein at least one of the fins of at least one of the axial and radial ports has an edge turned towards the fan inclined so that the edges of the blades of the fan turned towards said port progressively sweep across said edge of the fin while turning about the rotary shaft.

Examiner: Naishadh N. Desai

Response to Office Action Mailed 04/28/2008

Docket: VAL 223 P2 - MFR 0204 PCT

- 11. (Currently Amended) An alternator for use in a vehicle, said alternator comprising a longitudinal axis, an outer shell of hollow form, a stator fixed in the outer shell, a rotary shaft passing through the stator along the longitudinal axis, a rotor fixed to the <u>rotary</u> shaft rotating inside the stator, and a fan with blades driven rotationally by the rotary shaft and disposed on a first axial side of the rotor inside said outer shell, said outer shell having, on the one hand, at its outer periphery, radial ports and, on the other hand, at least one of its axial ends, axial ports for constituting air inlet and air outlet ports arranged so that the fan creates a flux of air going from said air inlet to said air outlet, said air inlet and outlet ports each consisting of comprising an opening cut in the outer shell and subdivided by mechanical supporting fins each elongated according to a profile specific thereto, in which a radial port is made on a radial face, overall of longitudinal orientation, of the outer shell and has a substantially cylindrical overall shape coaxial with the longitudinal axis, characterized in that wherein at least one fin, referred to as a radial fin, of said radial port, considered in the a plane tangential to this said radial port at the level of said radial fin, extends in a general direction forming an angle greater than 0° with respect to the a longitudinal direction so that edges of the fan with blades turned towards said radial port progressively sweep across the radial fin according to its profile while turning about the rotary shaft, in a shearing movement whereby at each instant only one substantially point-shaped portion of the-an edge of the blade is opposite the radial fin.
- 12. (Currently Amended) The alternator according to Claim 11, characterized in that wherein the angle is less than 30°.
- 13. (Currently Amended) The alternator according to Claim 11, characterized in that wherein the radial port comprises at least one radial fin which, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the radial direction.

Examiner: Naishadh N. Desai

Response to Office Action Mailed 04/28/2008

Docket: VAL 223 P2 - MFR 0204 PCT

- 14. (Currently Amended) The alternator according to Claim 11, characterized in that wherein at least one axial port is made on an axial face of the outer shell, overall of orientation perpendicular to the longitudinal axis, and is delimited on a radially inner side by a substantially circular inner edge, at least one fin, referred to as an axial fin, of said port, considered in a plane perpendicular to the longitudinal axis, extending in a general direction forming an angle less than 90° with respect to the tangent to the inner edge so that said axial fin, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the radial direction.
- 15. (Currently Amended) The alternator according to Claim 14, characterized in that wherein the angle is greater than 60°.
- 16. (Currently Amended) The alternator according to Claim 14, characterized in that-wherein the radial port comprises at least one radial fin which, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the radial direction, and in that the axial fin, considered in cross-section in a plane perpendicular to the longitudinal axis, is inclined with respect to the radial direction in the same sense as the radial fin.
- 17. (Currently Amended) The alternator according to Claim 11, characterized in that-<u>wherein</u> the radial fins have, perpendicular to their profile, a section of constant size.
- 18. (Currently Amended) The alternator according to Claim 11, characterized in that wherein the radial fins have, perpendicular to their profile, a section of variable size along this profile.

Examiner: Naishadh N. Desai

Response to Office Action Mailed 04/28/2008

Docket: VAL 223 P2 - MFR 0204 PCT

19. (Currently Amended) The alternator according to Claim 18, characterized in that wherein the fins have a curved profile.

20. (Currently Amended) The alternator according to Claim 11, characterized in that wherein at least one of the fins of at least one of the axial and radial ports has an edge turned towards the fan inclined so that the edges of the blades of the fan turned towards said port progressively sweep across said edge of the fin while turning about the rotary shaft.